Apple II
Technical Notes

Developer Technical Support

ProDOS 8
#11:   The ProDOS 8 MACHID Byte

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This Technical Note describes the machine ID byte (`MACHID`) which ProDOS maintains to help
identify different machine types.

ProDOS 8 maintains a machine ID byte, `MACHID`, at location $BF98 in the ProDOS 8 global
page.
Section 5.2.4 of the *ProDOS 8 Technical Reference Manual* correctly documents the definition
of this byte.

`MACHID` has become less robust through the years. Although it can tell you if you are running
on an Apple][,][+, IIe, IIc, or Apple /// in emulation mode, it cannot tell you which version of
an Apple IIe or IIc you are using, nor can it identify an Apple IIGS (it thinks a IIGS is an Apple
IIe). However, the byte still provides a quick test for two components of the system which you
might wish to identify: an 80-column card and a clock card.

Bit 1 of `MACHID` identifies an 80-column card. ProDOS 8 Technical Note #15, How ProDOS 8
Treats Slot 3 explains how this identification is determined. Note that on an Apple IIGS, this bit
is always set, even if the user selects Your Card in the Control Panel for slot 3. The bit is set
since ProDOS 8 versions 1.7 and later switch out a card in slot 3 in favor of the built-in 80-
column firmware, unless the card in slot 3 is an 80-column card. ProDOS 8 behaves in the same
manner on an Apple IIe as well.

Bit 0 of `MACHID` identifies a clock card. Note that on an Apple IIGS, this bit is always set since
the IIGS clock cannot be switched out of the system. Due to these unchangeable settings, the
value of `MACHID` on the Apple IIGS is always $B3, as it is on any Apple IIe with an 80-column
card and a clock card.

Further Reference
- *ProDOS 8 Technical Reference Manual*
- *Apple IIGS Hardware Reference Manual*
- ProDOS 8 Technical Note #15, How ProDOS 8 Treats Slot 3
- Miscellaneous Technical Note #7, Apple II Family Identification